

Serial No.: 10/519,143

Art Unit: 2859

Inventor: John Harold FLEXMAN et al.

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Amendments to the Drawings:

The attached nine sheets of drawings replace the original two sheets of drawings. The replacement sheets include changes to Figures 2, 3, and 4 and add new Figures 2B, 2C, 2D, 3B, 3C, 3D, 4B, 4C, 4D, and 5. Figure 2 has been relabeled as Figure 2A, Figure 3 has been relabeled as Figure 3A, and Figure 4 has been relabeled as Figure 4A. The new Figures are added to show features recited in the claims and are in accordance with the Examiner's suggestions. Support for the new Figures is found throughout the specification, the claims, and the original drawings. No new matter has been added.

Attachments: Replacement Sheets (9)

REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Claims 1-14 were pending in this Application. In this Amendment, claims 2, 3, and 7-14 have been amended, claims 1 and 4-6 have been canceled, and claims 18-24 have been added. Accordingly, claims 2, 3, 7-14, and 18-24 will be pending upon entry of this Amendment. The specification has been amended to reflect changes made to the claims and to address informalities. For at least the reasons stated below, Applicant respectfully submits that all claims pending in this application are in condition for allowance.

In the Office Action mailed October 2, 2006, the drawings were objected to for including reference characters not mentioned in the description and for not showing features of the invention specified in the claims; the specification was objected to for failing to describe reference characters indicated in the drawings; claims 1-3 and 14 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,291,994 to Kim et al. ("Kim"); and claims 7-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of U.S. Patent No. 5,792,572 to Pitzen et al. ("Pitzen"). Applicants appreciate the Examiner's indication that claims 4-6, 12, and 13 would be allowable, pending an updated prior art search, if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

New drawings are submitted herewith to include all of the features recited in the claims in accordance with the Examiner's suggestions. The specification has been amended to include the reference characters 25 and 30 in the description and to reflect changes made to the claims.

No new matter has been added. Accordingly, Applicants respectfully request reconsideration and withdrawal of the objections to the drawings and the specification.

Claims 2 and 14 have been amended to incorporate features believed to be allowable in light of the Kim reference and the Examiner's indications of allowable subject matter.

Specifically, the claims recite that the contact members comprise a pair of contact surfaces having mutually large contact surface areas and that, in the active position, the contact surface areas are brought into physical and electrical contact with each other to connect into the coil-capacitor circuit. Kim does not disclose contact surfaces as claimed. Claims 1 and 14 are therefore allowable.

With respect to the claimed "mutually large contact surface areas," it appears that the Examiner refers to the length of the wire and considers the extent of it to be anticipate the claimed large contact surface areas. Applicants respectfully submit that this interpretation is in error. The lengths of wires, for one, are not part of a switch and, two, are not contact surfaces. The wires are not contact surfaces as claimed for at least the reason that they do not move between a quiescent portion and an active position, in which they would not be in contact with another contact surface in the former and would be in contact with another contact surface in the latter. Further, the wires are not brought into physical and electrical contact with each other.

Further, the Examiner identifies the "contacting members" as claimed as "the terminals of each of the contact points that the MOSFET switch of figure 1 connects to." The Examiner proceeds to state that the movement of these contacts is via the rotating switch of figure 1. The Examiner then refers to the phrase, "where the contact surface areas are separated by a small distance" and refers to "the gap when the auto-tune relay switches and capacitors are in the

'open' switch position." This analysis is inconsistent if the "pair of physically and electronically contacting members" are the terminal points that the MOSFET switch of figure 1 connect to. The contacting members that are moveable can be brought together and that have a gap between them cannot be the rotating switch or "the gap when the auto-tune relay switches and capacitors are in the 'open' switch position."

The Examiner's reference to Kim is further in error because the features identified therein are parts of separate components or sub-circuits. It is improper for the Examiner to collect individual features of different components of different circuits and combine them to form a new circuit (or switch in this case) without any suggestion or motivation to do so.

For example, for a "low ESR switch" as claimed, the Examiner refers to col. 14, line 6 through col. 18, line 4. This passage starts "[t]he Q-dampening subsystem." A Q-dampening subsystem is not a low ESR switch. The function of the Q-dampening subsystem is to dissipate the energy in the coil-capacitor system and to temporarily lower the Q of the coil-capacitor system. The whole point of having a low ESR switch is to preserve the energy in the coil-capacitor system when switching circuits into or out of the coil-capacitance circuit and hence maximize the Q in the coil-capacitor system; *i.e.*, not to degrade the Q of the system when introducing additional circuits into the coil-capacitance system.

There is nothing in the cited passage that indicates that the Q-dampening subsystem has been specifically designed with the intention of having it connect to the coil-capacitance subsystem in a manner to preserve the Q of the coil-capacitance system. In fact, Kim teaches away from this notion. The opening sentence of the cited portion states, "[t]he Q-dampening subsystem 10 effectively *increases* the equivalent series resistance [ESR]" (emphasis added).

This statement would lead one of skill in the art to believe that the discussion therein would not provide any useful information regarding production of a low ESR switch and would suggest a system to lower the Q by increasing the ESR of the circuit, which is in fact what is described in Kim. The goal of a low ESR switch is to minimize the equivalent series resistance of the circuit when selectively adding or removing circuits to the coil-capacitance subsystem, not to increase the equivalent series resistance.

The Examiner cites Pitzen for the teachings of various coatings for electrical contacts. Pitzen relates a rechargeable battery adapted to be attached to an orthopedic device and clearly does not cure the above-noted deficiencies of Kim. As a result, claims 7-11 are patentable over Kim and Pitzen, alone or in combination.

For at least the foregoing reasons, Applicants respectfully submit that claims 2 and 14 are patentable over Kim. Claims 3, 7-13, 18, 19, and 24 are patentable over Kim at least by virtue of their dependency from claims 2 and 14 and for the additional features recited therein.

New claim 20 is based on previous claim 4 and the Examiner's indication of allowable subject matter. Although not identical, Applicants respectfully submit that the features recited in claim 20 are patentable over the cited references for at least similar reasons as those provided by the Examiner with respect to claim 4. New claim 21 includes substantially all of the features of previous claim 4 and is allowable for at least the reasons provided by the Examiner.

New claims 22 and 23 are substantially similar to previous claims 5 and 6, respectively, and are believed to be allowable for at least the reasons provided by the Examiner with respect to claims 5 and 6.

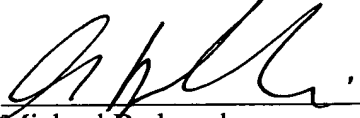
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In view of the foregoing all of the claims in this case are believed to be in condition for allowance. Should the Examiner have any questions or determine that any further action is desirable to place this application in even better condition for issue, the Examiner is encouraged to telephone applicants' undersigned representative at the number listed below.

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